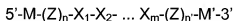


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A probe having the general structural formula (I)



wherein X_1 , $X_2 \dots$ and X_m are in each case an arbitrary nucleotide or nucleotide analog and in which the sequence $X_1-X_2- \dots X_m$ is a probe sequence which is capable of binding to an analyte,

Z is a spacer, in each case independently, a pyrimidine nucleotide or ~~pyrimidine nucleotide analog,~~

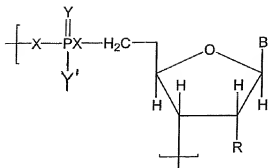
M and M' are identical fluorescent labeling groups,

n and n' are, in each case independently, integers of from 1 to 15, and

m is an integer corresponding to the length of the probe sequence,

and wherein $(Z)_n$ does not hybridize with $(Z)_{n'}$.

2. (Original) The probe as claimed in claim 1,
characterized in that X_1 , $X_2 \dots$ and X_m are selected, in each case independently, from units having the general structural formula (II) or salts thereof:



wherein

B is a natural or unnatural nucleobase,

R is a radical which is selected from H, OH, halogen, -CN, -C₁-C₆-alkyl, -C₂-C₆-alkenyl, -C₂-C₆-alkynyl, -O-C₁-C₆-alkyl, -O-C₂-C₆-alkenyl, -O-C₂-C₆-alkynyl, -SH, -S-C₁-C₆-alkyl, -NH₂, -NH(C₁-C₆-alkyl) and -N(C₁-C₆-alkyl)₂,

-X is, in each case independently, a radical which is selected from -O-, -S-, -NR'- and -CR'₂-,

-Y is, in each case independently, a radical which is selected from =O and =S, and

-Y' is, in each case independently, a radical which is selected from -OR', -SR', -(NR')₂ and -CH(R')₂,

where R' is, in each case independently, H or C₁-C₃-alkyl.

3. (Previously presented) The probe as claimed in claim 1, characterized in that X₁, X₂ ... and X_m are 2'-deoxynucleotides.
4. (Currently amended) The probe as claimed in claim 1,

characterized in that Z is selected from thymidine nucleotides ~~or nucleotide~~
analogs and/or cytidine nucleotides ~~or nucleotide~~ analogs.

5. (Currently amended) A probe as claimed in claim 1,
characterized in that at least one Z is a thymidine nucleotide ~~or nucleotide~~
analog.
6. (Previously presented) The probe as claimed in claim 1, characterized in
that Z is in each case a thymidine 2'-deoxynucleotide.
7. (Currently amended) The probe as claimed in claim 1, characterized in
that M and M' are selected, in each case ~~independently~~, from RHODAMINES
[[TM]] RHODAMINE GREENTM (5-(6)-carboxyrhodamine), TETRA-
METHYLRHODAMINETM (N,N,N',N'-tetramethyl-6-carboxy-rhodamine),
OREGON GREENTM (2',7'-difluorofluorescein), fluoresceins, oxazines, and
cyanines, BODIPYTM and ALEXATM dyes.
8. (Previously presented) The probe as claimed in claim 1, characterized in
that M and M' are selected from green fluorescent labeling groups.
9. (Previously presented) The probe as claimed in claim 1, characterized in
that M and M' are identical.

10. (Withdrawn) The probe as claimed in claim 1, characterized in that M and M' are different.
11. (Previously presented) The probe as claimed in claim 1, characterized in that n and n' are, in each case independently, integers of from 3 to 10.
12. (Previously presented) The probe as claimed in claim 1, characterized in that m is an integer of 10-90, preferably of 12-50.
13. (Withdrawn) The use of one or more probes as claimed in claim 1 in a method for detecting an analyte in a sample.
14. (Withdrawn) The use as claimed in claim 13, characterized in that the concentration in the sample of the analyte to be detected is $\leq 10^{-9}$ M.
15. (Withdrawn) The use as claimed in claim 13, characterized in that the analyte is a nucleic acid.
16. (Withdrawn) The use as claimed in claim 15, characterized in that the nucleic acid to be detected is an RNA from a biological sample or an unamplified cDNA which is synthesized therefrom.

17. (Withdrawn) The use as claimed in claim 15, characterized in that the nucleic acid to be detected is an unamplified genomic DNA.
18. (Withdrawn) The use as claimed in claim 13 in fluorescence correlation spectroscopy (FCS).
19. (Withdrawn) The use as claimed in claim 13, characterized in that several probes in each case having a different sequence and different labeling groups are used for detecting a single analyte.
20. (Withdrawn) The use as claimed in claim 19, characterized in that the detection comprises a crosscorrelation determination.
21. (Withdrawn) A method for detecting an analyte in a sample, comprising bringing the sample into contact with one or more probes as claimed in claim 1 under conditions under which the one or more probes can bind to the analyte to be detected and then determining whether binding takes place or not.

22. (Withdrawn) The method as claimed in claim 21, comprising the detection of a nucleic acid by means of hybridization.
23. (Withdrawn) The method as claimed in claim 22, characterized in that the nucleic acid to be detected is not amplified before being brought into contact.
24. (Withdrawn) The probe according to claim 1, wherein said nucleotide analog and said pyrimidine nucleotide analog are independently a PNA or LNA building block.
25. (Currently amended) A probe having the general structural formula (I)
- $$5'-M-(Z)_n-X_1-X_2- \dots X_m-(Z)_{n'}-M'-3'$$
- wherein X_1 , X_2 ... and X_m are in each case an arbitrary nucleotide or nucleotide analog and in which the sequence $X_1-X_2- \dots X_m$ is a probe sequence which is capable of binding to an analyte,
- Z is a spacer, in each case independently, a pyrimidine nucleotide or pyrimidine nucleotide analog,
- M and M' are identical fluorescent labeling groups,
- n and n' are, in each case independently, integers of from 3-10, and
- m is an integer corresponding to the length of the probe sequence,
- and wherein $(Z)_n$ does not hybridize with $(Z)_{n'}$.